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LIMITED ENGLISH PROFICIENT STUDENTS: EXIT RATES FOR 2008-09 COHORT

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ABSTRACT

Exit rates from Limited English Proficiency (LEP) for students who enter the Wake County Public School System (WCPSS) as LEP students vary by when students enter WCPSS (based on students entering in kindergarten, grade 6 or 7, or grade 9). Based on our 2008-09 cohorts, students entering in grades 6 or 7 were most likely to exit LEP status after four years (54%), followed by those entering in kindergarten (39%), and finally those entering in grade 9 (27%). Exit rates vary based on performance on the LEP placement test. Students scoring higher on the test initially have a much better chance of exiting LEP within four years, indicating better English proficiency upon entry to WCPSS leads to a better chance of exiting LEP faster. Students with low initial placement test scores take longer to exit the program if they enter WCPSS at the higher grade levels. Further research will examine the effects of a variety of support services on the exit rates of LEP students in the cohort.

Introduction

The Wake County Public School System (WCPSS) serves students with limited English proficiency (LEP) through English as a Second Language (ESL) services (see Appendix A for federal definition of LEP). In 2011-12, roughly 7.5% of WCPSS students were classified as LEP (Vouk, 2012). According to federal data and estimates, the growth from 2002-03 to 2011-12 of WCPSS's LEP population outpaced both state and national growth in the same time period.

Reports that include LEP student outcomes generally demonstrate patterns of performance that trail the district's overall student population. These patterns are evident over time and across a number of measures, including End-of-Grade (EOG) and End-of-Course (EOC) test performance, graduation rates, and retention rates, among others (Strategic Plan, 2012).

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One indicator that has received less attention is the length of time required for LEP students to exit this classification and stop receiving ESL services. Entry into and exit from LEP classification depend on performance levels on specified English language assessments, and these vary across the country. English proficiency is connected to students' ability to understand instruction and perform on assessments, and often test exemptions are not in place for as long as research suggests it takes for LEP students to become proficient in English. In North Carolina public schools, students in their first year in U.S. schools who score low on the reading portion of the LEP placement test are exempt from the NC READY End-of-Grade (EOG) English Language Arts Assessment, the NC READY End-of-Course (EOC) Assessment of English II, or any associated alternate assessments (North Carolina Department of Public Instruction, 2012).

The length of time students need to achieve proficiency varies based on the level of English proficiency students have upon entry into U.S. schools and on the instruments used to measure when they are considered proficient. One widely-cited research study on exit rates found that LEP students aged 8-11 who entered an ESL program required 2-5 years to reach grade-level English language proficiency norms (Collier, 1987). Students aged 5-7 who entered an ESL program required 3-8 years to exit, while students aged 12-15 required 6-8 years to exit. The author concluded that among all students, 4-8 years was required to reach grade level proficiency and exit a specified ESL program (Collier, 1987). While ESL program enrollment is different from LEP classification, the former is a reasonable proxy for the latter since nearly all students with limited English proficiency receive ESL service support directly or indirectly.

A previous analysis conducted by the WCPSS ESL office examined annual exit rates and demographics as well as exit rates by years in program for all LEP students in WCPSS in 2008-09 through 2011-12 (Brock, 2012). This study found that about 69% of students who exited LEP in 2010-11 and in 2011-12 had spent 4-8 years in the program.

The current study differs in two important ways from the ESL office analysis. First, it is a cohort study which follows over time three cohorts of LEP students who entered WCPSS in the 2008-09 school year to examine their exit rates--students who entered WCPSS as LEP students in kindergarten, grades 6 and 7 combined, and grade 9 in 2008-09. Second, the current study considers initial proficiency and grade of entry to WCPSS in relation to attainment of English proficiency, which has not been studied extensively in previous studies.

Background: W-APT and ACCESS Testing

The 2008-09 cohorts were chosen because that is the year when WCPSS, along with all North Carolina districts, began using World-Class Instructional Design and Assessment (WIDA) tests for LEP students. WCPSS uses two WIDA tests: WIDA-ACCESS Placement Test (W-APTTM) and Assessing Comprehension and Communication in English State-to-State for English

Language Learners (ACCESS for ELLs®, or ACCESS). The W-APT screens incoming students to determine whether they are to be classified as limited-English proficient (LEP). Students are given the W-APT if a language other than English is indicated on the Home Language Survey given at enrollment. The ACCESS for ELLs is used to test LEP students each year to determine LEP status for the following school year.

A dataset was developed for use in this study and in follow-up studies. It contains data for all LEP students from 2008-09 through 2011-12, including demographic information and test results. Data from several sources were carefully checked, cleaned, and combined to create a dataset of over 25,000 students. Descriptions of the data sources are contained in Appendix B.

The cohort for this study includes students who in 2008-09 were either in kindergarten or in grades 6, 7, or 9 who have W-APT scores available for 2008-09. A summary of the number of students at each grade level as well as mean W-APT scores is displayed in Table 1. The number of students taking the test in kindergarten is higher than in other grades since the number of new students who may have limited English proficiency is greatest at kindergarten. The W-APT is given to determine LEP status of incoming students only; students entering other grade levels who already have LEP status determined would not have been expected to take the W-APT. Scores are slightly higher than the midpoint for the kindergarten level, slightly lower than the midpoint for the grades 6-7, and furthest below the midpoint for the grade 9 cohort. Both the W-APT and ACCESS are administered in five grade level clusters: K, 1-2, 3-5, 6-8, & 9-12. The tests are comprised of four domains: listening, speaking, reading, and writing. Students receive a raw score and proficiency level, valued one through six, in each domain as well as an overall composite proficiency level.

Table 1

Number of 2008-09 LEP Students taking W-APT in 2008-09 in Grades K, 6, 7, & 9

Grade and Semester	Number of Students	Mean W-APT Score*
Kindergarten**	1,405	16.47
Kindergarten, first semester	1,356	16.42
Kindergarten, second semester	49	17.63
Grades 6 & 7 combined	179	2.77
Grade 9	164	2.10

^{*}For kindergarten, Mean = Average Total Score (W-APT Listening raw score + W-APT Speaking raw score). The maximum value in listening is 17 and in speaking is 15, for a maximum total of 32.

For grades 6 & 7 and 9, Mean = Average grade-adjusted composite proficiency level (CPL). The adjusted CPL is calculated using scores from all domains, and possible values range from 1-6.

^{**}According to WIDA, reading and writing are optional tests in kindergarten and in the first semester of first grade, so the W-APT analysis for all of kindergarten uses only the listening and speaking scores. Because very few students were tested in the second semester of kindergarten, they are combined with the first semester scores in further analysis.

Students taking the W-APT in the first semester of kindergarten are only tested in and receive raw scores for listening and speaking, while students entering in the second semester of kindergarten and above are tested in all four domains. An incoming student's LEP status is based on different cut-off values for different grade levels. These values are listed in Table 2.

Table 2
Cut Scores for W-APT

Grade and Semester	Score to Obtain LEP Status	
Kindergarten, first semester	(Listening raw score + Speaking raw score) < 27 (of 30)	
Kindergarten, second semester	(Listening raw score + Speaking raw score) < 27 (of 30)	
through first grade, first	Or Reading raw score < 14 (of 17)	
semester	Or Writing raw score < 17 (of 18)	
First grade, second semester	Performance level of any section (listening, speaking, reading, or	
through grade 12	writing) < 5 (of 6)	
	Or Composite/overall performance level < 5 (of 6)	

Source: WCPSS English as a Second Language (ESL) Office

After taking the W-APT, based on the test results, a student is assigned an ACCESS tier, which corresponds to which ACCESS test form is to be used. There are three ACCESS tiers: Tier A (Beginning), Tier B (Intermediate), and Tier C (Advanced). As illustrated in Table 3, a student's ACCESS tier corresponds to the English language proficiency description determined by the value of the composite proficiency level (CPL). For example, a student with an ACCESS CPL of 1.1 is considered "Entering" and would be assigned to Tier A.

Table 3

ACCESS Tier Descriptors

AC	ACCESS Tier		English Language Proficiency Description	Composite Proficiency Level (CPL) Range
			Entering	1 <= CPL < 2
Α			Beginning	2 <= CPL < 3
	В		Developing	3 <= CPL < 4
			Expanding	4 <= CPL < 5
		ر	Bridging	5 <= CPL < 6
			Reaching	CPL = 6

Source: http://www.wida.us/assessment/ACCESS/

W-APT and ACCESS Results

The analysis in this section breaks out the 2008-09 W-APT scores for the cohort based on W-APT score quartiles. For kindergarten, the W-APT score used is the sum of listening and speaking raw scores, while the adjusted composite proficiency level is used for the higher grades.

The number of students and mean W-APT scores shown are calculated using the quartile (25%, 50% median, 75%, and 100%) values as maximum values for the groups.

ACCESS mastery is shown across time for each grade level within the groups over four years. Students "Exiting" are those who scored high enough on the ACCESS to exit LEP status. The number of students "not tested" can include students who exited LEP status in a previous year, students who left WCPSS by transferring or dropping out, or students who were not tested for another reason. The total number and percent of each group who exited LEP status by the end of the four years are shown in the final columns of the tables.

Kindergarten Results

As seen in Table 4, the number of students initially scoring in each quartile group on the W-APT at kindergarten was reasonably even, ranging from 271 students at the highest level (group 4) to 427 in the third group. Students with greater English proficiency initially were more likely to be able to exit by their fourth year in WCPSS (increasing from 22.7% for the lowest scoring group to 60.5% for the highest scoring group). Overall, 38.9% of students entering kindergarten as LEP in 2008-09 exited LEP status by the end of 2011-12.

Table 4

W-APT and Four-Year ACCESS Mastery Results for 2008-09 Kindergarten Students

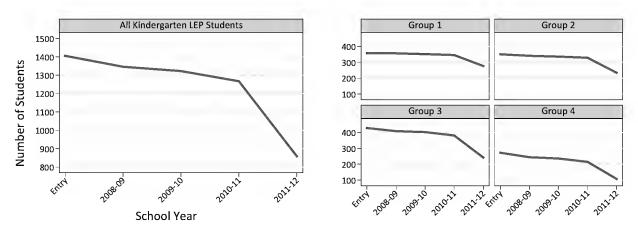
				Nu	mber of St	udents Achi	ieving ACCI	SS Master	У
1	W-APT Es	timates				(Exiting LE	P status)		
	Max								Exited by
Group*	Value	N	Mean	Exiting	2008-09	2009-10	2010-11	2011-12	2011-12
				Yes	2	4	6	69	81
1	10	357	4.13	No	345	327	304	225	(22.7%)
				Not Tested	10	24	41	51	
				Yes	10	5	7	94	116
2	18	350	15.16	No	332	318	290	180	(33.1%)
				Not Tested	8	17	38	54	
				Yes	20	6	21	139	186
3	24	427	21.90	No	401	382	331	176	(43.6%)
				Not Tested	6	19	49	65	
				Yes	27	9	21	107	164
4	30	271	25.84	No	228	231	197	79	(60.5%)
				Not Tested	16	4	17	28	
411.55.0				Yes	59	24	55	409	547
All LEP S		1,405	16.47	No	1,306	1,258	1,122	660	(38.9%)
in Kindergarten				Not Tested	40	64	145	198	

^{*} The moximum values for each group ore determined by the quortile estimates of W-APT scores for this group of WCPSS LEP students. The score used for each student is the sum of the row listening score and the row speaking score.

When examining the number of kindergarten students exiting in each year over the four years in this study, a more dramatic increase is seen in the fourth year, leading to a drop in the number of students remaining LEP after four years in the program. This aligns with the expected range of 4-8 years. Figure 1 illustrates the decrease in the overall group as well as in each of the four groups. While the number of students in each group varies, this pattern is similar as in the overall group.

Figure 1

LEP Student Counts for Kindergarten Cohort, Overall and By W-APT Group, 2008-09 through 2011-12



Source data in Table 4

Grade 6 & 7 Results

The W-APT results for grades beyond kindergarten look slightly different because we are able to analyze proficiency levels rather than raw scores. However, the general idea is the same, with scores and exit rates calculated in groups based on the W-APT quartiles. While there were fewer students taking the W-APT in grades 6 or 7 than in kindergarten, Table 5 shows that *the percent in the grade 6-7 cohort exiting within four years is higher overall at 53.6% compared to 38.9% of the kindergarten cohort.* However, this pattern does not hold for students whose W-APT score was below the value of the 25% quartile. Only 13% of those students in grades 6 and 7 had exited LEP status by the end of 2011-12, while nearly 23% of kindergarten students had exited. The trend that does appear to be similar is that the chance of exiting in four years increases for the groups corresponding to higher W-APT quartiles (Figure 2).

Table 5

W-APT and Four-Year ACCESS Mastery Results for 2008-09 Students in Grades 6 & 7

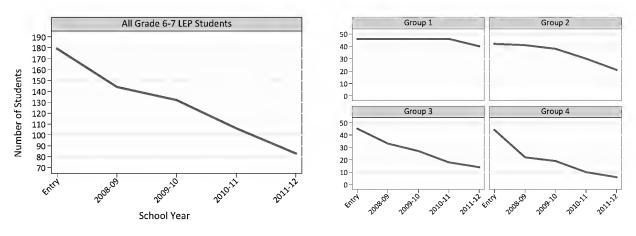
				Nu	mber of Stu	udents Ach	ieving ACCI	ESS Master	У
V	V-APT Esti	imates				(Exiting LE	P status)		
	Max								Exited by
Group*	Value	N	Mean	Exiting	2008-09	2009-10	2010-11	2011-12	2011-12
				Yes	0	0	0	6	6
1	1.22	46	1.14	No	42	44	38	30	(13.0%)
				Not Tested	4	2	8	10	
				Yes	1	3	8	9	21
2	2.66	42	1.96	No	38	33	20	9	(50.0%)
				Not Tested	3	5	12	14	
				Yes	12	6	9	4	31
3	3.95	45	3.25	No	29	22	9	3	(68.9%)
				Not Tested	4	5	9	11	
				Yes	22	3	9	4	38
4	5.71	44	4.81	No	19	15	5	1	(86.4%)
				Not Tested	3	4	5	5	
AULEDC	Ad			Yes	35	12	26	23	96
All LEP Students in Grades 6 & 7		179 27	2.77	No	128	114	72	43	(53.6%)
ın Graae	25 D & /			Not Tested	16	18	34	40	

^{*} The maximum values for each group are determined by the quartile estimates of W-APT scores for this group of WCPSS LEP students. The score used for each student is the W-APT adjusted composite proficiency level.

Compared to the kindergarten cohort, the grade 6 and 7 cohort shows a steadier decrease in the number remaining LEP over the four years considered. Figure 2 shows that the trends in groups 2-4 are similar to the overall group, while students with the lowest W-APT scores only start to exit in their fourth year, and most remain LEP at the end of four years.

Figure 2

LEP Student Counts for Grades 6-7 Cohort, Overall and By W-APT Group, 2008-09 through 2011-12



Source data in Table 5

Grade 9 Results

A similar number of students enter WCPSS as LEP students in grade 9 as in grades 6-7 combined (164 versus 179). However, the overall exit rate of 27.4% at grade 9 is notably lower than those from both kindergarten and grades 6 and 7 (which were 38.9% and 53.6% respectively). It is important to note that 50 (30%) of the 164 ninth graders scored a 1.00 on the W-APT, the maximum value for the lowest quartile of W-APT scores, which also happens to be the minimum possible score on the test. Of Group 1, only one of 50 students exited LEP status by the end of four years. Students with scores in groups 2 had an exit rate of 5.9% (2 of 34 students), with group 3 had an exit rate of 28.2%. The only group in the ninth grade cohort with high exit rates was group 4, with a 75.6% exit rate.

Table 6
W-APT and Four-Year ACCESS Mastery Results for 2008-09 Students in Grade 9

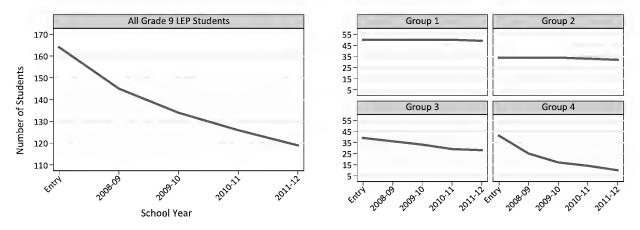
				Nu	mber of Stu	udents Achi	ieving ACCI	ESS Master	у
V	V-APT Esti	imates				(Exiting LE	P status)		
	Max		- (0						Exited by
Group*	Value	N	Mean	Exiting	2008-09	2009-10	2010-11	2011-12	2011-12
				Yes	0	0	0	1	1
1	1.00	50	1.00	No	50	42	33	25	(2.0%)
				Not Tested	0	8	17	24	
				Yes	0	0	1	1	2
2	1.35	34	1.34	No	23	27	22	12	(5.9%)
				Not Tested	11	7	11	20	
				Yes	3	3	4	1	11
3	2.64	39	2.00	No	28	26	16	8	(28.2%)
				Not Tested	8	7	13	20	
				Yes	16	8	3	4	31
4	5.55	41	4.16	No	15	11	7	0	(75.6%)
				Not Tested	10	6	7	10	
AULEDG				Yes	19	11	8	7	45
All LEP S		164	2.10	No	116	106	78	45	(27.4%)
in Gra	iae y			Not Tested	29	28	48	74	

^{*} The moximum values for each group ore determined by the quartile estimates of W-APT scores for this group of WCPSS LEP students. The score used for each student is the W-APT odjusted composite proficiency level.

The difference in trends of exit rates among the four groups of students is illustrated in Figure 3, where we see that the trend only for group 4 is representative of the overall group trend. Groups 1 and 2 remain relatively flat, while group 3 has a slight decrease.

Figure 3

LEP Student Counts for Grade 9 Cohort, Overall and By W-APT Group, 2008-09 through 2011-12



Source data in Table 6

Students who entered grade 9 in 2008-09 and who graduated after four years in high school would have been expected to graduate by the end of 2011-12. Reports of graduation rates have shown historically low percentages of LEP students achieving graduation in four years. In fact, a report of WCPSS graduation rates for 2011-12 shows that both 4-year and 5-year graduation rates are much lower for LEP students than for other subgroups (Regan, 2013). In 2011-12, the four-year graduation rate for WCPSS LEP students was 34.6% compared to 80.6% for all students, and the subgroup with the second lowest rate was students with disabilities at 61.1%. The 2011-12 five-year rate for LEP students was 48.9% compared to 84.4% for all students, and the SWD subgroup had the second lowest five-year rate at 64.2%. While our data shows the exit rate from LEP status varies greatly by W-APT performance, it will be interesting to see what further research shows in regards to the relationship between W-APT and ACCESS scores and graduation rates for these students.

Group Comparisons

While the kindergarten cohort appears to be on track to achieve English proficiency in the expected 4-8 years, the other cohorts do not follow the same trend. Grades 6 and 7 show a steady decrease in the number of these students remaining LEP over time, while grade 9 decreases slowly with a lower overall exit rate. These trends are illustrated in the larger graphs seen in Figures 1-3.

An examination of the percent of students in each cohort remaining at the end of each school year shows the kindergarten group decreasing more slowly than the others during the first three

10% 0%

-6-7

-9

Entry

years, then dipping in the fourth year to 61% (see Figure 5). The grade 6-7 group has the lowest percent remaining across all four years, while grade 9 decreases steadily but slowly.

100% 90% 90% 80% 40% 40% 40%

2008-09

Percent of Cohort Remaining LEP at End of Each Year, 2008-09 through 2011-12

 100%
 96%
 94%
 90%
 61%

 100%
 80%
 74%
 59%
 46%

 100%
 88%
 82%
 77%
 73%

2009-10

2010-11

2011-12

Note: Entry is beginning of the school year 2008-09. Source data in Tables 4-6.

Conclusion

LEP students in WCPSS and elsewhere in the U.S. struggle to succeed in our schools and reach graduation. In WCPSS, this study suggests those entering WCPSS in grades 6 or 7 have the best chance of becoming English proficient in four years, followed by Kindergarten, followed by ninth grade. Those entering in high school have a low chance of exiting LEP status in four years.

The percentage of students exiting LEP within four years increases with W-APT score. This was a graduated increase at grades K and 6-7, but only grade 9 students with the highest W-APT scores had a good chance of exiting LEP status in four years.

It is somewhat counter-intuitive that middle school student have higher exit rates in four years than Kindergarten students, and this finding deserves further exploration.

Recommendations/Questions to Consider

Determining the best ways to support the academic success of LEP students is a challenge nationwide. Our expectation is that LEP students master instructional content as they master the language, so all supports must be as strong as possible (whether during the school day or at other times). WCPSS needs to consider ways to improve services and therefore exit rates for LEP students, especially for those who enter WCPSS at the high school level. The rigorous course offerings of the common core are more demanding for students in general; students who are still learning English have an additional challenge. Given the current gaps in student outcomes for LEP students versus other students, re-visiting the effectiveness of current supports is advised. The following are our recommendations.

- 1. Program staff should revisit current structures of support for ESL students and consider improvements. This is particularly critical at the high school level. Program staff members have begun to review how WCPSS currently supports students through sheltered instruction, guided study, and resource opportunities. Staff should consider the following questions:
 - a. Are there districts in the state or nation with similar LEP populations who have higher exit rates than WCPSS? If so, are they offering different or additional supports that should be considered in WCPSS? Do they regionalize service or provide support in all schools? Do supports vary by level of English proficiency?
 - b. How are students within WCPSS selected for supplemental supports? Are services differentiated based on English proficiency levels?
 - c. Can English proficiency be developed utilizing online or computer-based strategies outside of the school day or regular school year (track-out or summer)?
 - d. Are there benchmarks of success that should be routinely monitored specifically for the LEP population (beyond the annual measurable objectives and the measures used for all students)? Should supports follow that are unique for these students?
 - e. Based on the exit rate results and changes made, what goals for exit rates would be appropriate? Developing a plan which lays out program goals and timelines could be quite helpful; timelines for attainment of certain benchmarks might vary based on initial proficiency levels.

- 2. Data and Accountability staff should continue to study the success of these cohorts as they move through school based on key indicators of success. Taking a closer longitudinal look at the 2008-09 cohorts can help in identifying both stumbling blocks and effective practices. Data and Accountability does intend to study the K-2 and 9-12 cohorts more closely this spring. Specific questions to be addressed include:
 - Do students receiving services beyond basic ESL services during the day (summer, after school, track-out, ESL Academy) attain English proficiency and/or higher achievement faster than similar students who receive only basic services?
 - Does program effectiveness vary by English proficiency levels?
- 3. The outcomes for students who have exited LEP status should be examined more closely. Once students exit LEP status, we would expect them to be as successful as other students over time. Whether this occurs has not been studied in WCPSS. The list of possible questions is extensive, including the following:
 - a. Does the exit grade make a difference in subsequent success in school? In a study by de Jong (2004) of outcomes for former English Language Learners (ELLs), results for 4th grade students more closely resembled those for non-ELL students, while results for 8th grade students trailed those of non-ELL peers. The author also found that exit grade was significant for 4th grade students in predicting English language arts and science outcomes. ELL status is a reasonable approximation for LEP as the terms are commonly used interchangeably.
 - b. After they exit, do students perform in school as well or better than:
 - Those in the same subgroups who have never been LEP?
 - Those LEP students highest in proficiency without reaching the exit status?
 - c. How do achievement, dropout, and graduation rates change if we include exited LEP students in the group?
 - d. What characteristics and supports are common for students who entered WCPSS with limited English proficiency and who succeeded in exiting LEP status and graduating? Compared to similar students who did not attain this status?

Addressing these questions, while it may take time, would help WCPSS have a better sense of their success with LEP students during and after the years they receive ESL support. A joint effort of English as a Second Language and Data and Accountability staff could lead to stronger data and solutions for supporting our LEP students.

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Appendix A: Definition

Federal Definition of Limited English Proficient (LEP) / English Language Learners (ELL) This is the number of students served in appropriate programs of language assistance (e.g., English as a Second Language, High Intensity Language Training, bilingual education). The name of this field changed to English Language Learners (ELL) in the 2001-02 school year from Limited-English Proficient (LEP) used in prior school years.

Appendix B: Data Sources

Several files containing data from each of the four years 2008-09 through 2011-12 were combined in order to create a master dataset for use in this analysis. In order to be sure all datasets were reliable and able to be merged to one another, several steps were taken.

- 1. Checked for duplicate student records, and removed records that should not be used. Each file should only have one record per student.
- 2. Due to a transition from WCPSS-based data storage to a system managed by the North Carolina Department of Public Instruction (NC DPI) during this time, several students have had new identification numbers assigned when changing between North Carolina school districts. In order to merge student data over several years, each dataset was first updated with current ID numbers for all students.
- 3. Matched ID numbers to a list of all known valid ID numbers, and found valid ID numbers for students not found based on name and other information.

The Federal Data Collection (FDC) files are considered to be the best source for LEP status, so these files were merged in order to create a master list of all LEP students over four years. The data from files in Table B1 were then merged together using up-to-date NCWISE ID numbers as student identifiers. The final dataset contains 25,474 students who were LEP in at least one of the four years.

Table B1

Data Sources

Data File Type	Source	School Years	Use of Data
FDC download containing a	ESL Office	2008-09, 2009-10,	Identify students with LEP
list of all students classified		2010-11, 2011-12	status for each school year
as LEP for each year			
W-APT test results from	ESL Office	2008-09, 2009-10,	W-APT participation and
each year		2010-11, 2011-12	scores
ACCESS test results from	ESL Office	2008-09, 2009-10,	ACCESS participation and
each year		2010-11, 2011-12	scores
After-school & track-out	ESL Office	2010-11 & 2011-12	Program participation
program rosters			
Summer school rosters	ESL Office	2010 & 2011	Program participation
ESL Academy rosters	ESL Office	2008-09, 2009-10,	Program participation
		2010-11, 2011-12	
Elementary, middle, and	Data & Accountability	2008-09, 2009-10,	School, grade level,
high school student rosters		2010-11, 2011-12	demographics, test results
Student locator	Data & Accountability	2008-09, 2009-10,	Student data
		2010-11, & 2011-12	
		year-end files	
Student locator	Data & Accountability	current daily file	List of valid ID numbers